Zhibo "Eric" Sun

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Research Interests

My research interests lie broadly in the area of computer security and privacy. In my research, I apply data-driven analytics to study real-world computer security problems and investigate human vulnerabilities by analyzing users' security behaviors and decision-making processes. In particular, some of my research is about e-crime, threat intelligence, underground economies, Internet fraud, and web security.

Education

Arizona State University, Tempe, AZ   2016 – Current
Ph.D. in Computer Science

University of Wyoming, Laramie, WY   2011 – 2013
Master in Computer Science

Publication

Conferences:

- Penghui Zhang, **Zhibo Sun**, Sukwha Kyung, Hans Behrens, Zion Leonahenahe Basque, Haehyun Cho, Adam Oest, Ruoyu Wang, Tiffany Bao, Yan Shoshitaishvili, Gail-Joon Ahn, and Adam Doupé. I'm Spartacus, No, I'm Spartacus: Proactively Protecting Users from Phishing by Intentionally Triggering Cloaking Behavior. In *Proceedings of the ACM Conference on Computer and Communications Security (CCS)*, 2022.

- **Zhibo Sun**, Adam Oest, Penghui Zhang, Carlos Rubio-Medrano, Tiffany Bao, Ruoyu Wang, Ziming Zhao, Yan Shoshitaishvili, Adam Doupé, and Gail-Joon Ahn. Having Your Cake and Eating it: An Analysis of Concession-Abuse-as-a-Service. In *Proceedings of the USENIX Security Symposium (USENIX)*, 2021.

- Penghui Zhang, Adam Oest, Haehyun Cho, **Zhibo Sun**, RC Johnson, Brad Wardman, Shaown Sarker, Alexandros Kapravelos, Tiffany Bao, Ruoyu Wang, Yan Shoshitaishvili, Adam Doupé, and Gail-Joon Ahn. CrawlPhish: Large-scale Analysis of Client-side Cloaking Techniques in Phishing. In *Proceedings of the IEEE Symposium on Security and Privacy (Oakland)*, 2021. Best Student Paper Award

- Marzieh Bitaab, Haehyun Cho, Adam Oest, Penghui Zhang, **Zhibo Sun**, Rana Pourmohamad, Doowon Kim, Tiffany Bao, Ruoyu Wang, Yan Shoshitaishvili, Adam Doupé, and Gail-Joon Ahn. Scam Pandemic: How Attackers Exploit Public Fear through Phishing. In *Proceedings of the Symposium on Electronic Crime Research (eCrime)*, 2020.

- **Zhibo Sun**, Carlos E. Rubio-Medrano, Ziming Zhao, Tiffany Bao, Adam Doupé, and Gail-Joon Ahn. Understanding and Detecting Private Interactions in Underground Forums. In *Proceedings of the ACM Conference on Data and Application Security and Privacy (CODASPY)*, 2019.

- Ajay Modi, **Zhibo Sun**, Anupam Panwar, Tejas Khairnar, Ziming Zhao, Adam Doupé, Gail-Joon Ahn, and Paul Black. Towards Automated Threat Intelligence Fusion. In *Proceedings of the IEEE International Conference on Collaboration and Internet Computing (CIC)*, 2016.

- **Zhibo Sun**, Hong Zhang, Zixia Liu, Chen Xu, and Liqiang Wang. Migrating GIS Big Data Computing from Hadoop to Spark: an Exemplary Study Using Twitter. In *Proceedings of the IEEE International Conference on Cloud Computing (CLOUD)*, 2016.

- Hong Zhang, **Zhibo Sun**, Zixia Liu, Chen Xu, and Liqiang Wang. Dart: A Geographic Information System on Hadoop. In *Proceedings of the IEEE International Conference on Cloud Computing (CLOUD)*, 2015.

- **Zhibo Sun**, Ashish Dhital, Nattaya Areejitkasem, Neera Pradhan, and Amy Banic. Effects on Performance of Analytical Tools for Visually Demanding Tasks through Direct and Indirect Touch Interaction in an Immersive Visualization. In *Proceedings of the IEEE International Conference on Virtual Reality and Visualization (ICVRV)*, 2014.

Teaching Experience

- **Teaching Assistant** (82 Students)   Jan. 2016 – May. 2016
  CSE 469 & 598: Forensic Computing: Computer and Network Forensics   *Arizona State University*

- **Instructor** (60 Students)   Jan. 2013 – May. 2015
  COSC 1200: Computer Information Systems   *University of Wyoming*

- **Instructor**   Mar. 2012 – May. 2012

HONORS AND AWARDS

- **Best Student Paper Award**   May 2021
  by the 42nd IEEE Symposium on Security and Privacy (Oakland)

- **The CIDSE Doctoral Fellowship**   Mar 2020
  by the School of Computing, Informatics, and Decisions Systems Engineering (CIDSE)
  Arizona State University

- **The Cybersecurity Fellowship**   Aug 2019
  by the School of Computing, Informatics, and Decisions Systems Engineering (CIDSE)
  Arizona State University

- **The Cybersecurity Fellowship**   May 2019
  by the School of Computing, Informatics, and Decisions Systems Engineering (CIDSE)
  Arizona State University

SERVICE

- **Program Committee**
  - IEEE Symposium on Security and Privacy (Poster Session) (Oakland): 2022
  - International Conference on Emerging Security Information, Systems and Technologies (SECURWARE): 2022
  - APWG Annual Symposium on Electronic Crime Research (eCrime): 2021, 2022

- **Journal Reviewer**
  - Computers & Security (COSE)
  - IEEE Transactions on Dependable and Secure Computing (TDSC)
  - International Journal of Data Science and Analysis (IJDSA)
  - Information Systems Frontiers (ISFI)

- **External Reviewer**
  - Network and Distributed System Security Symposium (NDSS): 2022
  - ACM Conference on Data and Application Security and Privacy (CODASPY): 2020, 2017
  - European Symposium on Research in Computer Security (ESORICS): 2018
  - ACM Conference on Computer and Communications Security (CCS): 2017
  - International Conference on Computational Science (ICCS): 2015
  - International Workshop on Programming Models and Applications for Multicores and Manycores (PMAM): 2015
  - IEEE Symposium on 3D User Interfaces (3DUI): 2013

TALKS

Guest Lectures:

- **Cybercrime in Undergrounds**   2021
  Computer Forensics class, Texas A&M University–Corpus Christi

- **Automated Threat Intelligence Framework**   2016
  Computer and Network Forensics class, Arizona State University

Invited Talks:

- **Report It: An Overlooked Way to Fight Phishing Attacks**   2020
  PayPal Inc.

Conference Presentations

- **Having Your Cake and Eating It: An Analysis of Concession-Abuse-as-a-Service**   2021
  Proceedings of the 30th USENIX Security Symposium (USENIX)

- **Understanding and Detecting Private Interactions in Underground Forums**   2019
  Proceedings of the Ninth ACM Conference on Data and Application Security and Privacy (CODASPY)

- **Towards Automated Threat Intelligence Fusion**   2016
  Proceedings of the IEEE Conference on Collaboration and Internet Computing (CIC)

- **DART: A Geographic Information System on Hadoop**   2015

Proceedings of the IEEE International Conference on Cloud Computing (Cloud)

- **Effects on Performance of Analytical Tools for Visually Demanding Tasks
  through Direct and Indirect Touch Interaction in an Immersive Visualization** 2014
  Proceedings of the IEEE International Conference on Virtual Reality and Visualization (ICVRV)

Poster Presentations

- **Understanding and Detecting Private Interactions in Underground Forums** 2018
  Center for Cybersecurity and Digital Forensics (CDF) Cybersecurity Symposium
- **Threat Intelligence Analytics (TIA): Assembling the Jigsaw Puzzles of Cybercrimes** 2016
  Center for Cybersecurity and Digital Forensics (CDF) Cybersecurity Symposium
- **Immersive Visualization in a CAVE?
  There's an app for that: Mobile Devices as a Universal Medium for Interaction** 2012
  Rocky Mountain Celebration of Women in Computing 2014 (RMCWiC)